

BASS, M.M., dotsent (Kiyev, Nazar'yevskaya ul. d.9,kv.16)

Use of rubber sponge as an alloplastic material. Vest.khir. 75  
no.3:113-116 Ap '55. (MIRA 8:7)

1. Iz kafedry khirurgii detskogo vozrasta (i.o. zav-dots. A.R.  
Shurinok) Kiyevskogo ordena Trudovogo Krasnogo Znameni meditsin-  
skogo instituta im. akad. A.A.Bogomol'tsa.

(SURGERY, PLASTIC,  
resin sponge in apoloplasty)  
(RESINS,  
sponge in alloplasty)

BASS, M.M., dotsent.

Congenital diaphragmatic hernia. Vest.khir.76 no.8:21-25 S '55.  
(MLRA 8:11)

1. Iz kliniki khirurgii detskogo vozrasta (i.o.sav. kaf.dots.  
A.R.Shurinok) Kiyevsk.ord.Trudovogo Krasnogo Znameni medits.inst.  
akad. A.A.Bogomol'tsa. Kiyev, Nazar'yevskaya ul. 9 kv.16.  
(HERNIA, DIAPHRAGMATIC  
congen.clin.aspects, compl. & management)

BASS, M.M., dotsent

~~1971-78~~  
Correction of extensive defects of the diaphragm in diaphragmatic hernia (experimental homoplasty) Vest.khir.76 no.10: 71-78 N '55. (MLRA 9:1)

1. Iz kafedry khirurgii detskogo vozrasta (i.o.sav.--dots. A.R.Shurinck) Kiyevskogo ordena Trudovogo Krasnogo znameni meditsinskogo instituta im. A.A.Bogomol'tsa  
(HERNIA, DIAPHRAGMATIC, surg.

exper.homotransplantation)

(TRANSPLANTATION

diaphragm, homografts in exper.surg. for diaphragmatic hernia)

BASS, M.M., dotsent

Scientific consultation work at a medical institute. Sov.sdrav.  
15 no.4:15-18 J1-Ag '56. (MLRA 9:9)

1. Iz Kiyevskogo Ordena Trudovogo Krasnogo Znameni meditsinskogo  
instituta imeni A.A.Bogomol'tsa. 2. Predsedatel' nauchno-konsult'-  
tatsionnogo byuro.

(SCHOOLS, MEDICAL,  
consultation serv. in Russia (Rus))

BASS, M.M., dotsent

~~WIKI-3774~~

Surgery for congenital occipital hernia. Vop.neirokhir. 20 no.3:  
44-45 My-Je '56. (MIRA 9:8)

1. Iz kliniki detskoy khirurgii Kievskogo meditsinskogo instituta  
(ENCEPHALOCHELE)

BASS, M.M., dotsent

Congenital absence of the diaphragm in a newborn infant. Pediatria  
39 no.5:72-75 S-0 '56. (MIRA 10:1)

1. Iz kliniki khirurgii detskogo vozrasta (i.o.sav. kafedroy -  
dotsent A.R.Shurinok) Kiyevskogo ordena Trudovogo Krasnogo Znameni  
meditsinskogo instituta (dir. - prof. Ye.F.Shamray)  
(DIAPHRAGM, abnormalities,  
agenesis, case report (Rus))

USSR / General Problems of Pathology. Transplantation U  
of Tissues and Tissue Therapy.

Abs Jour: Ref Zhur-Biol., No 11, 1958, 51564.

Author : Bass, M. M.

Inst : ~~Not given.~~

Title : Experimental Investigation of Formation of Vascular Connections in Implantation of a Rubber Sponge, Used in Alloplasty.

Orig Pub: Eksperim. khirurgiya, 1957, No 5, 50-54.

Abstract: Investigations were carried out on implantation of pieces of rubber sponge (S) of different varieties in the subcutaneous tissue, skeletal muscles and diaphragm of 80 rabbits and 9 dogs. It was established macro- and microscopically that within 87 days arteries developed in the capsule surrounding the sponge. Penetrating

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*Doz. H.M.*  
BASS, H.M., dots.

Diaphragmatic hernia caused by injury in a four-year-old girl.  
Pediatría 35 no.12:53-58 D '57. (MIRA 11:2)

1. Iz kafedry khirurgii detskogo vozrasta ( i.o.sav. - dotsent  
A.R.Shurinok) Kiyevskogo ordena Trudovogo Krasnogo Znameni meditsin-  
skogo instituta imeni A.A.Bogomol'tsa (dir. - dotsent M.P.Alekseyenko)  
(DIAPHRAGM--HERNIA)



BASS, M. M.: Doc Med Sci (diss) -- "Diaphragmal hernias and the correction of extensive defects of the diaphragm". Kiev, 1958. 32 pp (Kiev Order of Labor Red Banner Med Inst im Acad A. A. Bogomolets), 250 copies (KL, No 5, 1959, 154)

BASS, M.M., dotsent

"Form and Content of Scientific Abstracts" by M.K.Dal'.

~~Reviewed by M.M.Bass.~~ Vrach.delo no.2:215 F '59.. (MIRA 12:6)

1. Predsedatel' nauchno-konsul'tatsionnogo byuro Kiyevskogo  
meditsinskogo instituta.

(TECHNICAL WRITING) (DAL', M.K.)

BASS, M.M. (Kiyev)

Repair of defects of the diaphragm with rubber sponge. Eksper.  
khir. 4 no.4:47 J1-Ag '59. (MIRA 12:11)  
(DIAPHRAGM surg)  
(RUBBER)

BASS, M.M., dotsent

Use of a rubber sponge for alloplasty. Kaz.med.zhur. 40  
no.3:48-50 My-Je '59. (NIRA 12:11)

1. Iz kliniki khirurgii detskogo vozrasta (sav. - doktor med.  
nauk A.R.Shurinok) Kiyevskogo ordena Trudovogo Krasnogo Znameni  
meditsinskogo instituta.  
(SURGERY, PLASTIC)

BASS, M.M., kand.med.nauk

Problem of diverticulum of the heart. *Pediatrics* 38 no.8:84-  
87 Ag '60. (MIRA 13:12)

1. Iz kliniki khirurgii detskogo vozrasta (zav. kafedroy -  
doktor meditsinskikh nauk A.R. Shurinok) Kiyevskogo ordena  
Trudovogo Krasnogo Znameni meditsinskogo instituta imeni  
akad. A.A. Bogomol'tsa (dir. - dotsent I.P. Alekseyenko)  
(HEART--ABNORMALITIES AND DEFORMITIES)

BASS, Mikhail Mendeleovich for Doc Med Sci on the basis of dissertation defended 8 Jan<sup>59</sup>  
in Council of Kiev Order of Labor Red Banner Med Inst im Academician Bogomolets,  
entitled "Diaphragmatic hernias and replacement of extensive defects of the  
diaphragm." (BMVISO USSR, 1-61, 20)

BASS, M. M., doktor med. nauk

Joseph Lister; on the 50th anniversary of his death. Vest. khir.  
no.2:127-128 '62. (MIRA 15:2)

(LISTER, JOSEPH, 1827-1912)

BASS, M.M., doktor med. nauk; ISAYEVA, E.G.

Lethality in acute appendicitis in children according to  
clinical materials for sixteen years (1946-1961). *Pediatrics*  
42 no.3:67-68 Mar '63  
(MIRA 17:2)

1. Iz kliniki khirurgii detskogo vozrasta (zav. - prof.  
A.R. Shurinok) Trudovogo Krasnogo Znameni meditsinskogo in-  
stituta imeni akademika A.A. Bogomol'tsa na baze Bol'nitsy  
imeni M.I.Kalinina (glavnyy vrach V.A. Udintseva) i Spe-  
tsializirovannoy detskoy klinicheskoy bol'nitsy (glavnyy  
vrach T.P. Novikova), Kiyev.



BASS, M.M., doktor med. nauk; GLUZMAN, D.F., student;

Foreign bodies in the gastrointestinal tract in children.  
Kaz. med. zhur. 4:55-57 J1-Ag'63 (MIRA 17:2)

1. Kafedra khirurgii detskogo vozrasta (zav. - prof. A.R. Shurinok) Kiyevskogo meditsinskogo instituta.

BASS, N.M., doktor med.nauk

Pupil of the great Pirogov. Nauka i zhyttia 11 no.9:60 S '61.

(MIRA 14:10)

(Karavaev, Vladimir Afanas'evich, 1811-1892)

BASS, M.Y.

Diagnostic errors and surgical procedure in Schoenlein-Henoch  
purpura. Pediatria no.4:71-74 J1-Ag '54. (MIRA 7:10)

1. Iz khirurgicheskogo otdeleniya (sav. otdeleniyem K.D.Ioakimis)  
Romenskoy bol'nitsy (glavnyy vrach K.G.Sushkov)  
(PURPURA, NONTHROMBOPENIC,  
diag. errors & surg. in)

BASS, M.V. (Romny, Sumskoy oblasti, ul. Karla Marksa, d.28, kv.5)

Case of an accerssory liver lobe. Klin.khir. no.9871 S '62.

(MIRA 16:5)

1. Khirurgicheskoye otdeleniye (zav. - K.D. Ioakimis) Romenskoy  
bol'nitsy, Sumskoy oblasti.

(LIVER--ABNORMITIES AND DEFORMITIES)

SOV/68-59-7-9/33

AUTHORS: Kanevskiy, V.P., Kopychev, P.A., Bass, M.Ya., Gol'dberg, A.S. and Lokshin, M.A.

TITLE: An Increase in the Efficiency of Operation of Pistonless Jigging Machines

PERIODICAL: Koks i khimiya, 1959, Nr 7, pp 21 - 27 (USSR)

ABSTRACT: The re-design of the pistonless jigging machine operating at the Makeyevka Works is described. Main points are: 1) differential driving gear which permitted regulating the velocity of the medium within wide limits; 2) the automatic regulator of the removal of rocks and of the intermediate product was replaced by a pneumohydraulic one which secured the constancy of a high quality of the products; 3) the discharge of heavy fractions is done with the aid of a pocket in front of the outlet which decreased the contamination of heavy products with lighter fractions; 4) the number of pulsations was decreased from

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SOV/68-59-7-9/33

An Increase in the Efficiency of Operation of Pistonless Jigging Machines

96 to 32 per minute; 5) a scheme for automating the control of the discharge of air in relation to the load was developed. The above modification decreased coal losses with rock by a factor of 5 - 7 which varies at present between 0.2 - 0.5%. The yield of the fraction of specific gravity 1.5 - 1.8 in rocks decreased and varies within 0.5 - 3.0%. Coal loss in the intermediate product decreased by a factor of 3 and varies within 3.7%.

There are 5 figures and 4 tables.

ASSOCIATIONS: Dnepropetrovskiy gornyy institut (Dnepropetrovsk Mining Institute), Makeyevskiy koksokhimicheskiy zavod (Makeyevka Coking Works)

Card 2/2

BASS, M.Ya.; BINKEVICH, V.A.

Using pistonless jigs for ore dressing. Gor. zhur. no.5:62-65 My  
'63. (MIRA 16:5)

1. Mekhanobrochmet (for Bass). 2. Pridneprovskiy sovet narodnogo  
khozyaystva (for Binkevich).  
(Jigs and fixtures)

BASS, M.Ya., inzh.; BINKEVICH, V.A., inzh.

Using plungerless jigs in ore dressing. Sbor. nauch. trud.  
KGRI no.17:195-201 '63. (MIRA 17:1)



BASS, N.A., inzh.; ZABEZHANSKIY, I.I., inzh.; KARAMZINA, N.A., inzh.;  
MIKHILENKO, A.P., inzh.

Automatic voltage regulation in the substations of an electric  
power system. Elek. sta. 32 no.12:18-25 D '61. (MIRA 15:1)  
(Electric power distribution)

ca BASS, R.M.

The chemistry and biochemistry of lipid antigens.  
IV. Artificial lipid antigens. M. J. Ravich-Schierbo  
and R. M. Bass. *Z. Microbiol., Epidemiol., Immunitäts-  
ferm.* (U. S. S. R.) 1940, No. 11, 29-33 (in German, 23).  
—A series of cephalin, lecithin and cholesterol mixts. were  
prepd. and tested serologically. All produced hemolysis.  
On addn. of oleic acid their antigenic power decreased, al-  
though their pH had approached that of standard anti-  
gens. Antigens composed of Na oleate pure and in mixt.  
with cholesterol proved nonactive. Benzoic acid, arab-  
mose, Na oleate and oleic acid added to these artificial  
antigens as a rule produce hemolysis even when purst  
reagents are used, and do not increase the activity of the  
antigens. To find the factors causing hemolysis a number  
of alc. solns. of commercial lecithin and of cephalin were  
prepd. in concns. of 22.7 and 41.6 mg. per 100 cc., resp.,  
but even these low concns. led to hemolysis. To prep.  
pure lecithin, beef heart muscles were chopped fine, dried  
on glass plates at 38-40°, ground to a fine powder, sieved  
and extd. with ether and alc. The residue was treated with  
acetone twice. In the acetone ext. were contained chole-  
sterol and fat. The final residue contained of course some  
acetone, and on treating it with ether and bubbling some  
dry air through the ether ext. the acetone was removed.  
The residue remaining after ether extn. was treated with  
hot EtOH, then cooled and kept at 0° for 1-3 hrs. In the  
alc. ext. (filtered) were lecithin and cephalin. The ppt.  
contained fats and was adsorbed by  $\text{CoCl}_2$  in alc. soln.  
After adsorption some residue was again left. Ether was  
added and Cd-cepaphin went into soln. The residue con-

tained Cd-lecithin and was dissolved in  $\text{CHCl}_3$ . To this  
soln. was added MeOH contg. some  $\text{NH}_4$  to ppt.  $\text{CdCl}_2$ .  
After centrifuging and evapn. the decanted liquid to dry-  
ness, pure lecithin was finally obtained. It contained  
1.77% N, 3.98% P. The dry residue in 100 cc. of an  
EtOH soln. of this lecithin was 2.116 g. per 100 cc. The  
N content in mg. per 100 cc. of the EtOH soln. was 37.52,  
the P content 84.3 mg. To obtain pure cephalin, the  
Cd-cepaphin soln. was also treated with MeOH contg.  
 $\text{NH}_4$ ,  $\text{CdCl}_2$  was pptd. and centrifuged off. The liquid  
(MeOH plus  $\text{NH}_4$ ) was evapd. to dryness and pure  
cepaphin remained. Pure lecithin in alc. soln. (42.15 mg.  
%) produced hemolysis, but on addn. of 178 mg. % of  
pure cholesterol this was corrected. This mixt. repre-  
sented a satisfactory artificial antigen, active in comple-  
ment fixation, and highly specific in the Wasserman reac-  
tion. 13 references

C. S. Shapiro

ASB-114 METALLURGICAL LITERATURE CLASSIFICATION

8266 (1940)

6-17-40

10-10-40

10-10-40

10-10-40

10-10-40

10-10-40

BASS, R.M.

DEMIDOVA, T.M.; BASS, R.M.

TNI-4-08-1 device to determine the foreign matter content in  
cotton. Tekst. prom. 17 no.7:63-64 J1 '57. (MLRA 10:9)  
(Cotton--Grading)

BASS, S., slesar'

Devices used in transporting damaged automobiles into garages. Avt.  
transp. 36 no.2:30 F '58. (MIRA 11:2)  
(Automobiles--Maintenance and repair)

KUZ'MINSKIY, A., doktor khimicheskikh nauk, prof.; BASS, S., inzh.

Lengthening the life of polymers. Tekh.mol. 29 no.6:15 '61.

(Plastics)

(MIRA 14:7)

BASS, S.

About brake fluids. Avt. transp. 43 no.10:24 0 '65.

1. Brigadir slesarey avtokolonny No.2239 g. Kiyeva. (MIRA 18:10)

BASS, S.I.

④ 8

1128. Effect of carbon blacks on the development of oxidation processes in raw and vulcanized rubbers. A. S. KUZMINSKIY, L. I. YURCHANSKAYA, M. G. KULTROVA, and S. I. BASS. *Doklady Akad. Nauk S.S.S.R.*, 1953, 82, 181-3; *Rubb. Chem. Technol.*, 1953, 26, 858-61. Cf. this journal, 1952, abs. 3428. A translation of this paper now appears. 42160-R

math

10-11-54 MEF

BASS, S.I.

3  
②  
Combined action of free and bound sulfur and *N*-phenyl-2-naphthylamine on the oxidation of vulcanizing agents. A. S. Kuz'minskii and S. I. Bass. *Zhur. Priklad. Khim.* 27, 180-97 (1954).—The process of oxidative processes in rubber vulcanizates in the interval 80-130° was followed in connection with the effect of free and bound S. Free S is not only a weak but actually a harmful inhibitor, since, along with a very small lengthening of the induction period, it leads to intense addnl. structural formation of the vulcanizate. Bound (polysulfide) S in the absence of 2-C<sub>10</sub>H<sub>7</sub>-NHPh (I) displays a definite inhibiting effect on oxidation. Free S hinders the protective action of I and is, therefore, harmful at high-temp. oxidation conditions; in addn. it calls for unnecessary and undesirable consumption of the amine and gives too short an induction period. In the presence of free S, autocatalytic oxidation of the vulcanizate develops, even with an amine concn. up to 40% of its original value; the amine which remains at the initiation of detectable O absorption has less than 0.5 the inhibiting power in comparison with the pure amine. Bound S participates in the oxidative process along with the hydrocarbon part of the vulcanizate. O. M. Kosolapoff

10-15-54



KUZ'NINSKIY, A.S.; BASS, S.I.

Ninth conference on general problems relative to the chemical  
and physical properties of high molecular weight compounds.  
Kauch.i rez. 16 no.4:37-40 Ap '57. (MIRA 10:7)  
(Macromolecular compounds)

AUTHORS: Igonin, L. A., Bass, S. I. SOV/20-121-4-22/54

TITLE: Infrared Absorption Spectra of Oxybenzyl Amines (Infra-  
krasnyye spektry pogloshcheniya oksibenzilaminov)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 121, Nr 4,  
pp. 652 - 655 (USSR)

ABSTRACT: In the process of solidification of phenol formaldehyde  
resins by hexamethylene tetramine oxybenzyl amines are  
formed as intermediate products (Ref 1). They are multi-  
nuclear compounds the phenol nuclei of which are connected  
by dimethylamine nuclei and  $(-CH_2-NH-CH_2-)$  and tri-  
methylamine bridges  $(N(CH_2-)_3)$ . It is believed that in  
the course of solidification these bridges under the  
thermal influence become methylene and azomethine bridges.  
It was interesting to prove these assumptions by means  
of infrared spectroscopy. There are no papers dealing with  
the same subject. Results of the spectra mentioned in the  
title of some oxybenzyl amines are mentioned which were  
obtained by interaction of phenol and its mononuclear

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## Infrared Absorption Spectra of Oxybenzyl Amines

SOV/20-121-4-22/54

derivatives with hexamethylene tetramine (Fig 1). Based upon data in publications some intensive bands could be identified in the spectra of the following model substances: 2,2'-dioxy-3,5,3',5'-tetramethyl dibenzyl amine (I) and of trioxybenzyl amine which corresponds to it (II). Figure 2 shows spectra of absorption of multinuclear benzyl amines which are relatively low-molecular (Ref 4). Apart from the above mentioned absorption bands (Fig 1) intensive bands exist within the range of  $12,2\mu$  which corresponded to the three times substituted benzene ring, e.g. to the terminal groups of these compounds. Further bands prove that the p-substitutes of phenol react with hexamethylene tetramine accompanied by the formation of mainly dibenzyl amines. The o-substitutes form, however, mainly tribenzyl amines (in accordance with Ref 1). Figure 3 shows absorption spectra of oxybenzyl amines with a high molecular weight which are formed by interaction of phenol with hexamethylene tetramine in a diphenyl solution. On the whole they are nothing else but the spectra of figure 2 and are, however, considerably ramified. Owing to the above mentioned results the possibility arises to use the characteristic bands in

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Infrared Absorption Spectra of Oxybenzyl Amines

SOV/20-121-4-22/54

the range of  $11,84\mu$  and  $11,92\mu$  for the structural investigation of the solidification processes of the phenol formaldehyde resins in all cases where solidification undergoes the stage of formation of oxybenzyl amines. There are 3 figures and 4 references, 4 of which are Soviet.

ASSOCIATION: Nauchno-issledovatel'skiy institut plastmass (Scientific Research Institute of **Plastics**)

PRESENTED: April, 3, 1958, by V.A.Kargin, Member, Academy of Sciences, USSR

SUBMITTED: February 11, 1958

Card 3/4

SOV/138-59-4-14/26

AUTHORS: Kuz'minskiy, A.S. and Bass, S.I.

TITLE: The VIIIth Mendeleev Congress (VIII Mendeleevskiy  
s"yezd)

PERIODICAL: Kauchuk i Rezina, 1959, Nr 4, pp 47-48 (USSR)

ABSTRACT: This Congress on Pure and Applied Chemistry was held from 16th to 23rd March, 1959 in Moscow, and was attended by 1 500 representatives of Soviet Research Institutes, chemical factories and many foreign associations. Academician A.N. Nesmeyanov opened the meeting and emphasised the importance of the Mendeleev Congresses. V.S. Fedorov, representative of the Gosudarstvennyy Komitet Soveta Ministrov SSSR po khimii (State Committee of the Council of Ministers of the USSR for Chemistry) drew attention to Soviet achievements in chemistry. The following papers were read during the Congress: V.A. Kargin on the "Basic Problems in the Chemistry of Polymers"; A.N. Nesmeyanov on "The Periodic Law of D.I. Mendeleev and Organic Chemistry"; N.N. Semenov

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SOV/138-5-4-14/26

The VIIIth Mendeleev Congress

on "Basic Problems of Chemical Kinetics"; A.P. Aleksandrov on "Chemical Aspects of Utilizing Atomic Energy"; Ya. K. Syrkin, Corresponding Member of the Academy of Sciences of the USSR, on "The Basic Problems of the Theory of Chemical Bonds" etc. Special attention was drawn to the chemistry of high-molecular compounds and to methods for preparing starting materials for the synthesis of polymers based on petroleum crudes, further modification of the properties of polymers (block- and graft polymers, radiation vulcanisation etc.). V.A. Kargin discussed three main aspects of polymer chemistry: preparation of polymers which can be used within wide temperature ranges; preparation of new and easily accessible polymer materials and processing of polymers. Further details of the lectures are to be published at a later date.

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KUZ'MINSKIY, A.S.; BASS, S.I.

Summing up the results of the International Symposium on Macromolecular Chemistry in 1960. Kauch.i rez. 19 no.10:1-6 0 '60.

(MIRA 13:10)

(Macromolecular compounds--Congresses)

5.3832

68847

**AUTHORS:**

Igonin, L. A., Gintsberg, E. G.,  
Krasulina, N. A., Bass, S. I.,  
Kargin, V. A.

S/076/60/034/02/006/044  
B010/B015

**TITLE:**

Investigation of Oxybenzylamines Obtained From Phenol and Its Mononuclear Derivatives

**PERIODICAL:**

Zhurnal fizicheskoy khimii, 1960, Vol 34, Nr 2, pp 287-294 (USSR)

**ABSTRACT:**

On the basis of publication data it may be assumed that oxybenzylamines form as intermediates in the hardening of Novolack phenol formaldehyde resins with hexamethylenetetramine. In oxybenzylamines, the phenol nuclei are connected by dimethylamine- or trimethylamine bridges. At high temperatures, these bridges are transformed into methylene- or azomethine bridges. In the present case, a series of oxybenzylamines, obtained from phenol and its mononuclear derivatives, were investigated thermomechanically as well as by spectral analysis. The absorption spectra were taken by the IKS-11 spectrograph, and are given for 2,2'-dioxy-3,5,3',5'-tetramethyldibenzylamine and the corresponding tribenzylamine (Fig 1). The absorption bands observed at  $11.84\mu$  in dibenzylamine and at  $11.92\mu$  in tribenzylamine are traced back to the dimethylenamine- and trimethylenamine bridges between the phenol nuclei. This

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68847

Investigation of Oxybenzylamines Obtained From  
Phenol and Its Mononuclear Derivatives

S/076/60/034/02/006/044  
B010/B015

assumption is confirmed by the absorption spectra (Fig 2) of the multinuclear oxybenzylamines. The latter were prepared by a method described earlier (Table 1, preparation conditions). All spectra of the oxybenzylamines obtained from phenol and its para-substituted derivatives show the  $11.84\mu$  band whereas with oxybenzylamine obtained from o-chlorophenol this band lies at  $11.92\mu$ . Thus, it can be seen that it is the reaction between hexamethylenetetramine and the mononuclear phenols in a diphenyl solution that leads to the formation of the polymeric oxybenzylamines (Table 2, suggested structural formulas of polymers). The polyoxybenzylamines obtained from phenol and its para-substituted derivatives are amorphous linear polymers reticulated by individual cross bindings. The polymers have very strong chains whose  $T_g$  value lies above their thermal stability. The o-substituted derivatives form strongly ramified and reticulated polymers. The polyoxybenzylamines obtained from phenol reticulate under the effect of heat, and pass over into a non-meltable and insoluble state whereas polybenzylamines obtained from o- and p-substituted derivatives of phenol are thermally instable, and decompose at a temperature above  $160^\circ\text{C}$  forming low-molecular products. There are 6 figures, 2 tables, and 6 references, 1 of

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Investigation of Oxybenzylamines Obtained From  
Phenol and Its Mononuclear Derivatives

68847  
S/076/60/034/02/006/044  
B010/B015

which is Soviet.

ASSOCIATION: Nauchno-issledovatel'skiy institut plasticheskikh mass  
(Scientific Research Institute of Plastics) ✓

SUBMITTED: April 3, 1958

Card 3/3

IGONIN, L.A.; GINTSBERG, E.G.; KRASULINA, N.A.; BASS, S.I.; KARGIN, V.A.  
(Moskva)

Hydroxybenzylamines obtained from phenol and its mononuclear  
derivatives. Zhur. fiz. khim. 34 no.2:287-294 F '60. (MIRA 14:7)

1. Nauchno-issledovatel'skiy institut plasticheskikh mass.  
(Benzylamine)

34136

S/138/62/000/002/009/009

AO51/A126

11.2210  
15.8000

AUTHORS: Kuz'minskiy, A.S., Bass, S.I.

TITLE: Conference on aging and stabilization of polymers

PERIODICAL: Kauchuk i rezina, no. 2, 1962, 50 - 52

TEXT: The conference, convened by the AS USSR, the USSR Council of Ministers, State Committee on Chemistry and the Ministry of Higher and Intermediate Special Education of the RSFSR, took place at the Institute of Chemical Physics of the AS USSR, from November 14 - 17, 1961. Over 200 delegates participated and 62 papers were presented. Academician V.A. Kargin spoke on the subject of aging and stabilization of rubber, various plastics, fibers, dye and lacquer coatings, and he stressed the use of fillers and polymer substances as stabilizers. V.B. Miller, Yu.A. Shlyapnikova (IKhF AS USSR) discussed certain law sequences of oxidation destruction of polypropylene in the presence of antioxidant-aromatic amines and phenols. The conclusion that inhibitors initiate the oxidizing process of the polymer is confirmed. M.V. Neyman and A.L. Buchachenko (IKhF) spoke on the results of an investigation of stable radical products, formed in thermal and catalytic decomposition of hydroperoxides in the presence of various anti-

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Conference on aging.....

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S/138/62/000/002/009/009

A051/A126

oxidants. G.I. Likhtenshteyn (IKhF) presented the results of a theoretical investigation of the effects of inhibitors on the oxidation of hydrocarbons. Several papers dealt with the study of the synergetic effect of inhibitor mixtures. A.F. Lukovnikov, P.I. Levin and M.S. Khloplyankina (IKhF) investigated the synergism of mixtures of certain secondary amines with various sulfur-containing compounds in the process of oxidation of isotactic polypropylene at 200°C. An investigation of the behaviour of stable radicals of diphenylamine, phenyl- $\beta$ -naphthylamine, etc., in the presence of a number of sulfur-containing compounds, with the decomposition of the hydroperoxides using the EPR spectra was conducted by M.S. Khloplyankina, A.L. Buchachenko, (IKhF). A.B. Gagarina, Z.K. Mayzus and N.M. Emanuel, confirmed experimentally the existence of critical concentrations of inhibitors in liquid-phase oxidation of hydrocarbons, predicted by N.N. Semenov for slow chain reactions with degenerated branches. A.S. Kuz'minskiy and Yu.A. Goldovskiy (NIIRP) reported on certain laws of oxidation of polydimethylsiloxane rubber at 250 - 300°C. A discussion was given on the investigation of aging of methylvinylpyridine rubber and raw rubber, based on the latter, by L.G. Angert, A.I. Zenchenko and A.S. Kuz'minskiy, (NIIRP). The report of Z.A. Tarasova, I.I. Eyttinger, L.G. Senatorskiy, T.V. Fedorova, G.I. Andronova and B.A. Dogadkin (NIISHP), dealt with the results of an investigation on the action of

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S/138/62/000/002/009/009  
A051/A126

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certain thioamines, thiophenols and synergetic mixtures, based on the latter, during the process of vulcanization and in fatigue of NR, isoprene and butadiene-styrene rubber vulcanizates. The paper of G.L. Slominskiy, V.A. Kargin and Ye.V. Reztsova (INEOS AS USSR, NIISHP) concerned the problems connected with the transformation of macroradicals formed in high-elastic polymers under the action of mechanical tensions during processing service of these polymers. T.G. Degtyeva, I.K. Sedova and A.S. Kuz'minskiy (NIIRP) presented the results of an investigation of thermal decay (250 - 380°C) of the copolymer of trifluorochloroethylene with vinylidene fluoride. Yu.S. Zuyev and A.Z. Borshchevskaya (NIIRP) reported on the results of an investigation of corrosive cracking of deformed rubbers, based on carboxyl-containing butadiene-styrene rubber, [CKC-30-1 (SKS-30-1)], in solutions of HCl, CH<sub>3</sub>COOH and ozone, and also of rubbers based on NR and nairite in ozone. A conclusion was drawn that the destruction mechanism of rubbers in aggressive media, in the deformed and non-deformed state, is not the same. The use of the condensation of aniline chloride with acetaldehyde as stabilizers of raw and synthetic rubber products was discussed by L.P. Zalukayev, T.I. Zheltukhina, L.Ya. Sinitsyna (VNIISK). Certain papers dealt with the results of a study on destruction and stabilization of polyolefines. Ye.N. Matveyev, et al. (NIIPP) investigated the oxidation of polypropylene at 120 - 170°C

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S/138/62/000/002/009/009  
A051/A126

and showed the connection between the rate of oxygen absorption and property changes of polymers, both in the presence and absence of various stabilizers. The paper of V.D. Moiseyev and V.I. Suskin (IKhF) dealt with the theory on computing the rate of depolymerization, isomerization and transfer of the chain in thermal destruction of vinyl polymers using experimental data. V.S. Pudov and B.A. Gromov (IKhF) showed that the primary process in thermo-oxidation destruction of polypropylene is the formation of peroxides, the decomposition of which causes the formation of a complex mixture of the products of oxidation. N.V. Mikhaylov, et al., (VNIIV) made a study of certain stabilization features of polypropylene and fiber based on the latter, and analyzed the reasons for discrepancy in the induction periods of oxidation for the polymer and its fiber. P.I. Levin, P.A. Kirpichnikov, (IKhF) presented the results of their investigation of polypropylene stabilization with mixtures of phosphites and sulfur-containing compounds, not causing the appearance of a coloured polymer during the entire induction period. Certain possibilities of using the spectral methods for studying the aging processes of polymers were stressed by V.M. Chulanovskiy, (NIIShP). N.S. Yenikolopova, L.A. Dudina and L.V. Karmilova presented the results of an investigation on the thermal and thermo-oxidation destruction of polyformaldehyde. A.A. Berlin, et al., reported on the effect on the stability of polyvinylchloride polymers,

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S/138/62/000/002/009/009  
A051/A126

Conference on aging.....

with a system of conjugated links, produced in the polymerization of acetylene hydrocarbons, or in the splitting off of atoms or groups from the macro-molecules. S.R. Rafikov (INEOS, AS USSR), N.V. Mikhaylov (VNIIV) spoke on the thermal and thermo-oxidation destruction of polyamides. Several papers dealt with destruction and stabilization of condensed resins, photochemical destruction of intracellulose coatings, property changes of lacquer-dye coatings in aging, destruction and stabilization of cellulose ethers, radio-chemical transformation of polyethers, thermal destruction and stabilization of polydimethylsiloxane. A special meeting of the conference was devoted to the synthesis of new stabilizers: amines, screened phenols, phosphoro-organic compounds, light-stabilizers of the benzo-phenone row, derivatives of n-phenyleneamine, quinoline and phenol, as inhibitors of ozone aging of rubbers, etc. The importance of an all-sided study of the behaviour of real polymer materials under various conditions of storage, processing and service was emphasized. Resolutions were adopted to intensify the theoretical work on aging of real polymer systems, for unification of various methods for evaluating the aging process, and to increase publications on the problems of aging and stabilization of polymers. ✓

Card 5/5



BERLIN, A.A.; BASS, S.I.

Influence of "local activation" effect on the inhibiting  
activity of aromatic hydrocarbons. Izv.AN SSSR.Otd.khim.nauk  
no.8:1494 Ag '62. (MIRA 15:8)

1. Institut tonkoy khimicheskoy tekhnologii im. M.V.Lomonosova i  
Institut khimicheskoy fiziki AN SSSR.  
(Hydrocarbons) (Inhibition (Chemistry))

BASS, S.I.; Prinimala uchastiye: TIMOFEYEVA, G.V.

Use of tert-butyl hydroperoxide for the quantitative determination  
of tri-n-butyl- and triphenyl phosphites. Zhur.anal.khim. 17  
no.1:113-116 Ja-F '62. (MIRA 15:2)

1. M.V.Lomonosov Moscow Institute of Fine Chemical Technology.  
(Phosphorus organic compounds)

KUZ'MINSKIY, A.S.; BASS, S.I.

Conference on aging and stabilization of polymers. Kauch.i rez.  
21 no.2:50-52 F '62. (MIRA 15:2)  
(Polymers—Congresses)

~~421~~ 42186

S/076/62/036/011/016/021  
B101/B180

// 0172

AUTHORS: Bass, S. I., and Medvedev, S. S.

TITLE: The mechanism of the inhibiting action of phosphites in the oxidation of paraffinous hydrocarbons

PERIODICAL: Zhurnal fizicheskoy khimii, v. 36, no. 11, 1962, 2537-2539

TEXT: Triphenyl phosphite (I) and tri-n-butyl phosphite (II) were studied, with the oxidation of hexadecane at 140-160°C and atmospheric pressure. The peroxides content of the reaction mixture was determined iodometrically, and the consumption of I via the quantitative reaction of I with tert-butyl hydroperoxide. A linear increase in the induction period and a decrease in the peroxide content were found with increasing concentration of I, as well as direct proportionality between the amount of oxygen absorbed and the initial concentration of I. When 4% I was added, no further peroxides were formed. The rate constants of the consumption of I ( $k \cdot 10^7$  moles/liter.sec) were 66.5 at 160°C, 39.2 at 150°C, and 23.3 at 140°C, the activation energy was 21 kcal/mole. II proved much less active than I. Addition of 1.2% phenol had no effect on the induction

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The mechanism of the inhibiting...

S/076/62/036/011/016/021  
B101/B180

period, but lowered the oxidation rate and oxygen consumption. From the

reactions  $RH + O_2 \xrightarrow{k_0} \dot{R} + HO_2$ ;  $\dot{R} + O_2 \xrightarrow{k_1} RO_2$ ;  $RO_2 + RH \xrightarrow{k_2} ROOH + \dot{R}$ ;

$RO_2 + P \xrightarrow{k_3} RO + P=O$ ;  $RO + P \xrightarrow{k_4} \dot{R} + P=O$ ;  $ROOH + P \xrightarrow{k_5} ROH + P=O$ , where

P is the phosphite, P=O the corresponding phosphate, and assuming that  $k_2 \ll k_3$ , the induction period was found to be  $\tau = P_0/2w_0$ , where  $P_0$  is the initial phosphite concentration, and  $w_0$  is the initiation rate. Hence, this assumption leads to a linear function corresponding to the function  $\tau = f(P_0)$  which had been found experimentally. The more intensive action of I, as compared with II, is attributed to the effect of the electron acceptor phenyl groups. The inhibiting effect observed after the induction period is based on a competing reaction of the phenol formed by hydrolysis of I, and explains the result of the direct addition of phenol. There are 3 figures.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M. V. Lomonosova (Moscow Institute of Fine Chemical Technology imeni M. V. Lomonosov)

Card 2/3

The mechanism of the inhibiting...

S/076/62/036/011/016/021  
B101/B180

SUBMITTED: April 4, 1962

Card 3/3

X

BERLIN, A.A.; BASS, S.I.

"Matrix effects" during the activation of compounds having a conjugation system in the reaction inhibiting the oxidation processes. Izv. AN SSSR. Ser.khim. no.9:1652-1654 S '63.  
(MIRA 16:9)

1. Institut khimicheskoy fiziki AN SSSR i Institut tonkoy khimicheskoy tekhnologii im. M.V.Lomonosova.  
(Polymers) (Oxidation) (Inhibition (Chemistry))

S/076/63/037/003/016/020  
B101/B215

AUTHORS: Bass, S. I., Zil'berbrandt, A. M., Berlin, A. A.

TITLE: Study of the mechanism for the inhibiting action of compounds containing a system of conjugate bonds on thermal oxidation of low-molecular and polymer hydrocarbons. I. Inhibiting action of acenes on the oxidation of paraffin hydrocarbons

PERIODICAL:: Zhurnal fizicheskoy khimii, v. 37, no. 3, 1963, 682-685

TEXT: This is a report on the inhibiting action of anthracene, naphthacene, and pentacene on the oxidation of cetane and ceresin at 160 and 200°C. The following data are given for the adsorption rate of oxygen in the presence of 8 mmol/kg of acene in % of the adsorption rate without inhibitor: naphthacene 90 at 160°C, 55 at 200°C, pentacene 65 at 160°C, 78 at 200°C. At 160°C the length of the induction period is affected in the sequence anthracene < naphthacene < pentacene. These results are explained on the basis of energy changes in singlet-triplet transitions. Oxidation is accompanied by the formation of quinones which can be proved

Card 1/2



Study of the mechanism for the ...

S/076/63/037/003/016/020  
B101/B215

spectroscopically and which also inhibit oxidation. There are 3 figures and 1 table.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii im.  
M. V. Lomonosova (Moscow Institute of Fine Chemical  
Technology imeni M. V. Lomonosov)

SUBMITTED: May 26, 1962

Card 2/2

L 12412-63  
Pt-4 RM/WW

EMP(j)/EPF(o)/EMT(m)/ES(s)-2/BDS ASD/ESD-3/SSD Po-4/Pr-4/

ACCESSION NR: AP3001402

S/0020/63/150/004/0795/0798

AUTHOR: Berlin, A. A.; Bass, S. I.

TITLE: Local activation of compounds with conjugated system in inhibition reactions of oxidizing processes

SOURCE: AN SSSR. Doklady, v. 150, no. 4, 1963, 795-798

TOPIC TAGS: activated anthracene, paraffins

ABSTRACT: In an earlier work (S. I. Bass, A. I. Zilberbrand, A. A. Berlin, Zh. fiz khimii, no. 3, 1963), it was established that higher acenes (naphthalene, pentacene) contain paramagnetic particles and that anthracene does not show electrical paramagnetic resonance. It was assumed that this effect was a result of the local activation of the compounds with a conjugated system of paramagnetic particles formed during their synthesis. It was assumed that the activation products of anthracene containing paramagnetic particles will be more effective acceptors of free radicals and, therefore, of inhibitors of radical chain reactions. This assumption was investigated through a stepwise addition of paramagnetic particles to the activated anthracene. The correlation between the paramagnetic particles in the activated anthracene and its inhibiting ability of thermo-oxidation of paraffins was also investigated. Similar results were

L 12412-63

ACCESSION NR: AP3001402

obtained with some polymers with conjugated bonds such as polyphenylacetylene. The results showed that an optimum concentration of paramagnetic particles exists in relation to the inhibiting properties of activated anthracene. Also, the activation is valid in cases where the activating and activated compounds are closely related in their chemical structures. "We express our gratitude to S. S. Medvedev for his assistance and valuable hints in the explanations of the obtained results." Orig. art. has: 1 table and 4 graphs.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M. V. Lomonosova (Moscow Institute of Fine Chemical Technology)

SUBMITTED: 15Feb63

DATE ACQ: 01Jul63

ENCL: 00

SUB CODE: 00

NO REF SOV: 005

OTHER: 003

Card 2/2

BERLIN, A.A.; BASS, S.I.

Effect of the polarity of oxidized substratum on the inhibiting activity of the compounds having a conjugation system. Izv. AN SSSR Ser.khim. no.10:1854-1856 0 '63. (MIRA 17:3)

1. Institut tankoy khimicheskoy tekhnologii im. M.V.Lomonosova i Institut khimicheskoy fiziki AN SSSR.

L 17849-65 EMT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 RM  
ACCESSION NR: AP4047410

S/0062/64/000/010/1913/1913

AUTHOR: Bass, S. I.; Berlin, A. A.

TITLE: Local activation effect in the inhibition of oxidative processes by compounds with a conjugated system

SOURCE: AN SSSR. Izvestiya, Seriya khimicheskaya, no. 10, 1964, 1913

TOPIC TAGS: oxidation, thermal oxidation, oxidation inhibition, local activation effect, conjugated compound

ABSTRACT: Previous study of thermal-oxidative processes in paraffin hydrocarbons inhibited with conjugated compounds revealed that the inhibiting activity of anthracene rises sharply on introduction into the system of small amounts of paramagnetic fractions from thermal-oxidation products of anthracene proper or of polyphenylacetylene. In the present study, further investigation of these effects established experimentally that they result from an increase in the preexponential factor, since the activation energy remained the same with or without paramagnetic fractions. The authors are grateful to S.S. Medvedev for a valuable discussion of the results.

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L 17849-65

ACCESSION NR: AP4047410

2

ASSOCIATION: Institute Khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics, Academy of Sciences SSSR); Institute tonkoy Khimicheskoy technologii im M. V. Lomonosova (Institute of Fine Chemical Technology)

SUBMITTED: 20Jun64

ENCL: 00

SUB CODE: GC

NO REF SOV: 001

OTHER: 001

Card 2/2

L 23535-65 EWT(m)/EPP(c)/EPR/ENP(j)/T/ENP(v) Pc-l/Pr-l/Ps-l WW/RM

ACCESSION NR: AP5002818

S/0191/65/000/001/0003/0007,

AUTHOR: Berlin, A.A.; Bass, S.I.

TITLE: Preparation and some transformations of the oligomeric products of chloroparaffin dehydrochlorination

SOURCE: *Plasticheskiye massy*, no. 1, 1965, 3-7

TOPIC TAGS: oligomer, dehydrochlorination, chloroparaffin, quinoline, sodium butylate, epoxidation, polymerization, maleic anhydride, polyethylene polyamine, cobalt oleate, epoxide hardening

ABSTRACT: The dehydrochlorination of chloroparaffin was studied in an attempt to obtain oligomers capable of polymerization. The dehydrochlorination reaction was carried out by treatment with quinoline or sodium butylate solution in butyl alcohol. Several reactions are given for both compounds and the chemical composition of the oligomeric product obtained in each case is presented. When the dehydrochlorinated products formed by Na butylate were epoxidized with perbenzoic acid, it was noted that the introduction of the epoxide group increased the thermostability of the oligomer. Infrared spectra were obtained on both the prepared and the treated oligomers and their principal absorption bands are discussed. The polymerization capability of the dehydro-

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L 23635-65

ACCESSION NR: AP5002818

chlorinated products formed by both methods is compared. The epoxidized oligomers were test-hardened by using maleic anhydride and polyethylene-polyamine. The data showed that a wide selection of products with different properties can be obtained depending on the type of hardening conditions used. The adhesive properties of the oligomers were determined by drying their films on a glass surface in the presence of cobalt oleate. The results of these experiments confirmed the possibility of obtaining active oligomers based on chloroparaffin. Orig. art. has: 4 tables and 2 figures.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MT, OC

NO REF SOV: 008

OTHER: 014

Card 2/2



LEVANTOVSKAYA, I.I.; KOVARSKAYA, B.M.; NOVOSILOVA, I.A.; BERLIN, A.A.;  
BASS, S.I.; KLAPOVSKAYA, O.A.; GRACHEVA, B.S.; ANDRIANOVA, N.V.

Stabilization of polyethylene terephthalate. Plast. massy no. 2:15-17  
'65. (MIRA 18:7)

L 38281-65 EWT(m)/EPF(c)/EWG(m)/EWP(j)/T Pc-4/Pr-4 RWH/RM  
 ACCESSION NR: AP5007507 S/0286/65/000/004/0117/0117

AUTHORS: Berlin, A. A.; Bass, S. I.

TITLE: A method for obtaining oligomers capable of polymerization. Class 39,  
 No. 151821

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 4, 1965, 117

TOPIC TAGS: polymerization, oligomer, resin, epoxy, carboxyl, vaseline, paraffin, ceresine, unsaturated compound, pyridine, quinoline, pyridyl

ABSTRACT: This Author Certificate presents a method for obtaining oligomers capable of polymerization. To broaden the assortment of raw materials for obtaining the epoxy and carboxyl bearing resins, the products of dehydrochlorination of paraffin hydrocarbons (vaseline oil, paraffin, ceresin, etc) are used as original materials. These are epoxidized or carboxyl groups are introduced into them during their reaction with  $\alpha$ ,  $\beta$ -unsaturated acids. In an alternate method, to obtain oligomer substances with anion-exchange properties and high electrical conductivity, chlorparaffins are treated at high temperatures with heterocyclic compounds such as pyridine, quinoline, dipyridyl, etc.

ASSOCIATION: none

Card 1/1

BERLIN, A.A.; BASS, S.I.

Effect of local magnetic fields created by paramagnetic particles on  
chemical reactions. Teoret. i eksper. khim. 1 no.2:151-159 Mr-Ap '65.  
(MIRA 18:7)

1. Institut khimicheskoy fiziki AN SSSR, Moskva i Moskovskiy institut  
tonkoy khimicheskoy tekhnologii imeni M.V.Lomonosova.

L 1145-66 EWT(m)/EWP(j)/T RM

ACCESSION NR: AP5023692

UR/0076/65/039/009/2281/2284  
541.124/.12

AUTHOR: Bass, S. I.; Berlin, A. A.

TITLE: Mechanism of inhibition of oxidative processes by compounds with conjugated systems

SOURCE: Zhurnal fizicheskoy khimii, v. 39, no. 9, 1965, 2281-2284

TOPIC TAGS: oxidation inhibition, anthracene, paramagnetic material

ABSTRACT: In order to determine the mechanism governing the activating influence of the addition of paramagnetic particles on anthracene, the consumption of the latter during oxidation of ceresin was studied with and without the addition of a paramagnetic fraction isolated from products of thermal treatment of anthracene and containing  $2 \times 10^{18}$  paramagnetic particles per gram of substance. It was found that the mechanism of the inhibiting action of anthracene differs substantially from that which usually occurs during inhibition of oxidizing processes by known antioxidants: no appreciable loss of anthracene is observed during the induction period, and the duration of the latter is increased. It is postulated that the paramagnetic centers

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ACCESSION NR: AP5023692

of local activation play a catalytic part in the activation of anthracene by increasing the probability of  $S + T$  transitions in the diamagnetic molecules of anthracene which complex with these centers, such molecules being a part of a reactive complex formed with  $RO_2$ -radicals. "The authors thank Academician S. S. Medvedev for his interest in this work and helpful comments during the review of the results." Orig. art. has: 3 figures.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii (Moscow Institute of Fine Chemical Technology)

SUBMITTED: 13Jun64

ENCL: 00

SUB CODE: GC

NO REF SOV: 006

OTHER: 003

Card 2/2

ACCESSION NR: AF5004200

S/0020/05/100/001/0100/0100

AUTHORS: Berlin, A. A.; Bass, S. I.

TITLE: Local activation of anthracene during oxidation of paraffins inhibited by mixtures of tetracyanoethylene-anthracene

SOURCE: AN SSSR. Doklady, v. 160, no. 1, 1965, 106-108

TOPIC TAGS: anthracene, paraffin, tetracyanoethylene, ceresin, oxidation

ABSTRACT: The authors continued their previous work (DAN, 1960, No. 4, 298, 1961) on the inhibition of the oxidation of different substances by ceresin and

observed effects, oxidation of ceresin (with TCE-anthracene addition) was performed directly in the spectrometer resonator. A stable signal was observed after only a

Lord 1/2

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ACCESSION NR: AP5004200

few minutes at 1800. The signal intensity increased rapidly to  $10^{16}$  paramagnetic units per gram of inhibitor and remained constant. It is thus possible to produce a solution of the Tl-antioxidant addition product from a concentrated solution of the antioxidant in a solvent. The authors express their appreciation to S. S. Medvedev for his interest. Orig. art. has: 4 figures.

1. S. S. Medvedev, Institute for the Study of the Chemistry of the USSR Academy of Sciences, Moscow, U.S.S.R.

2. S. S. Medvedev, Institute for the Study of the Chemistry of the USSR Academy of Sciences, Moscow, U.S.S.R.

3. S. S. Medvedev, Institute for the Study of the Chemistry of the USSR Academy of Sciences, Moscow, U.S.S.R.

4. S. S. Medvedev, Institute for the Study of the Chemistry of the USSR Academy of Sciences, Moscow, U.S.S.R.

Caro 2/2

I 9219-66 EWT(m)/EWP(j)/T/ETC(m) WN/RN  
ACC NR: AP6000353 SOURCE CODE: UR/0286/65/000/021/0048/0048

INVENTOR: Bass, S. I.; Berlin, A. A.; Goldovskiy, Ye. A.; Kuz'minskiy, A. S.

ORG: none  
TITLE: Method of stabilizing polyorganosiloxanes against thermal-oxidation aging.  
Class 39, No. 176067<sup>15</sup> [announced by the Moscow Institute of Fine Chemical Technology  
im. M. V. Lomonosov (Moskovskiy institut tonkoy khimicheskoy tekhnologii)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 21, 1965, 48

TOPIC TAGS: polysiloxane, stabilizer, oxidation inhibition

ABSTRACT: An Author Certificate has been issued for a method of stabilizing polyorganosiloxanes to prevent thermal-oxidative aging. To increase the inhibiting effectiveness of the stabilizer, polynuclear aromatic compounds are used, such as anthracene heat treated at 300-450C in vacuum. [SM]

SUB CODE: 0711/ SUBM DATE: 23Jul64/ ATD PRESS: 4159

Card 1/1

UDC: 678.84.048.547.672.1



BASS, S.Y.; BERLIN, A.A.

Mechanism of the inhibition of oxidizing processes by compounds with a conjugated system. Zhur. fiz. khim. 39 no.9: 2281-2284 S '65. (MIRA 18:10)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii.

L 27788-65 EWT(m)/SPA(s)-2/EPF(c)/EWP(j) Pc-4/Pr-4/Pt-10 RM  
 S/0191/65/000/002/0015/0017  
 ACCESSION NR: AP5004309

AUTHOR: Levantovskaya, I. I.; Kovarskaya, B. M.; Novoselova, I. A.; Berlin, A. A.;  
Bass, S. I.; Klapovskaya, O. A.; Gracheva, B. S.; Andrianova, N. V.

TITLE: Stabilization of polyethylene terephthalate

SOURCE: Plasticheskiye massy, no. 2, 1965, 15-17

TOPIC TAGS: polymer stabilization, polyethylene terephthalate, polymer heat stability, polymer film, dielectric property, film strength, activated anthracene, polyester

ABSTRACT: The thermal stability of polyethylene terephthalate was determined in the presence and absence of thermally activated anthracene to study the effect of this stabilizer on the mechanical and dielectric properties of polyethylene terephthalate films. The thermal decomposition of polyester crumb, indicated by the increase in gas pressure, was determined at 260C and was found to increase with initial oxygen pressure in the absence of stabilizer. Thermally activated anthracene was prepared by heating in an inert atmosphere to 450C for 1 hour. In 0.1% concentration, the stabilizer markedly decreased the initial decomposition rate; 1% additions were more effective than non-activated anthracene and decreased the

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L 27788-65

ACCESSION NR: AP5004309

gas generation at 260C and 450 mm Hg oxygen pressure to about one fourth of the values measured with non-stabilized polymer. A similar but lesser effect was observed at 260C in a helium atmosphere. Films prepared with 0.1% activated anthracene showed improved tensile strength, both longitudinal and crosswise, an increase in specific electrical resistance and a slight decrease in dielectric loss angle. In 0.1% concentration the additive also had a significant effect on aging of films at 150C for up to 30 days. After this period, stabilized films exhibited good tensile strength, whereas the strength of non-stabilized films was reduced to a fraction of the initial value. The improved inhibitor activity of thermally treated anthracene can be related to the formation of paramagnetic particles and the polarization of molecules, as indicated by published studies. Activated anthracene is recommended as an additive for producing oriented films of polyethylene terephthalate. Orig. art. has: 4 figures and 1 table.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: 0C

NO REF SOV: 011

OTHER: 001

Cord 2/2

1. 1965-1966 PAT - 1965-1966 (1965-1966) - 1965-1966 (1965-1966) - 1965-1966 (1965-1966)

2. 1965-1966 PAT - 1965-1966 (1965-1966) - 1965-1966 (1965-1966) - 1965-1966 (1965-1966)

TITLE: A method for stabilizing polyamides; class no. 160421

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 4, 1965, 58

TOPIC TAGS: polyamide plastic, thermal stability, stabilization, anthracene

ABSTRACT: This Author's Certificate introduces a method for stabilizing polyamides against destruction by thermal oxidation. The process is simplified and the cost is reduced by using products from heat treatment of aromatic hydrocarbons with

ASSOCIATION: none

NO REF SOV: 000

OTHER: 000

L 5102-66 EWT(m)/EPF(c)/EWP(j) RM

ACC NR: AP5027182

SOURCE CODE: UR/0076/65/039/010/2571/2573

AUTHOR: Bass, S. I.; Berlin, A. A.ORG: Moscow Institute of Fine Chemical Technology im. M. V. Lomonosov (Moskovskiy Institut tonkoy khimicheskoy tekhnologii)TITLE: Synergistic effects in the inhibition of oxidation processes

SOURCE: Zhurnal fizicheskoy khimii, v. 39, no. 10, 1965, 2571-2573

TOPIC TAGS: oxidation inhibition, synergy, hydrocarbon, anthracene, phosphite, sulfide

ABSTRACT: A study has been made of the oxidation inhibition in such paraffins as hexadecane or ceresin by synergistic mixtures in which one component is a hydroperoxide reducing agent and the other is a free-radical acceptor. The experiments were conducted with mixtures of phosphites or sulfides with anthracene or anthracene heat treatment products. In phosphite mixtures, the phosphite acts as the reducing agent and anthracene acts as the free-radical acceptor. Phosphites are themselves free-radical acceptors and anthracene frees them for their reducing function. Experiments showed the effectiveness of the synergistic mixtures. This effectiveness can be improved not only by selection of the proper reducing agent, but also by varying the length of recombined chain and the paramagnetic particle concentration of the free-radical acceptor. The authors express their gratitude to Academician S. S. Medvedev

Card 1/2

UDC: 542.943+542.978:541.124.2

09010664

L 5102-66

ACC NR: AP5027182

for his attention and interest in this study. Orig. art. has: 4 figures.

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[BO]

SUB CODE: GC, MT/ SUBM DATE: 19Jun64/ ORIG REF: 007/ OTH REF: 002/ ATD PRESS:

4/33

Card

2/2

1. 00253-07 EWP(m)/EWP(j) TJP(c) RH/WV  
ACC NR: AP6029910 (A) SOURCE CODE: UR/0113/66/000/015/0086/0087

INVENTORS: Bass, S. I.; Berlin, A. A.; Yarkina, V. V.; Sbinar, L. A. 58

ORG: none

TITLE: A method for imparting heat resistance to hardened phenolaldehyde resins.  
Class 39, No. 184431 15

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 86-87

TOPIC TAGS: thermal stability, thermal process, resin, heat resistant plastic

ABSTRACT: This Author Certificate presents a method for imparting heat resistance to hardened phenolaldehyde resins. This is accomplished by adding to them (prior to their hardening) stabilizing compounds capable of interlinking and containing  $10^{16}$ -- $10^{19}$  paramagnetic particles per gram. To produce high-temperature stabilization (at temperatures on the order of 400C), polyphenyl acetylene or hardened phenolaldehyde resins (heat treated at 300--500C in an atmosphere of an inert gas or in a vacuum) are used as stabilizers.

SUB CODE: 11/

SUBM DATE: 13Feb65

Card 1/1 6/10

UDC: 678.018.0.678.420

BASS, S.V.

807/10-59-A-25/29

30

AUTHORS:

Tellobko, A.A., and Kinto, A.A.

TITLE:

The Sixth Conference of Young Scientific Workers of the Institute of Geography AS USSR (Institute of Geography AS USSR)

PERIODICAL:

Izvestiya Akademii nauk SSSR, Seriya Geograficheskiye, 1959, Nr. 4, pp 152-154 (USSR)

ABSTRACT:

The article covers the Sixth Conference of Young Scientific Workers of the Institute of Geography AS USSR which took place in Leningrad in 1959. Reports were read by the following scientific workers: I. G. Olch reported on "Some Genetic Regularities in the Distribution of Atmospheric Precipitation"; V. M. Kotlyakov and I. A. Yevseyev commented on structural features in snow and ice research in the Antarctic region; L. I. Mityagin spoke on the connection between the relief and hydrographical network and the latest tectonic movements in the Northern Urals area. G. P. Orlovskaya evaluated the evaporation according to the water balance method from the African continent; A. A. Kropotova discussed evaporation in the Gulf of Kara-Bogaz-Gol; I. M. Lebedeva reported on the impact of solar radiation on the snow melting in the Trans-Volga region; A. V. Yushin spoke on snow radiation near the Khibiny Leather Station; M. A. Gurtsova lectured on snow conditions in the mountains of Central Caucasus; E. M. Orlov reported on his new method to measure the amount of snow by a photo wind, whereby snow-flakes are recorded by a photometric device; M. A. Kuznetsov, T. I. Kuznetsova and V. I. Kuznetsov spoke on the heat balance observations they conducted at the Zapovednaya Scientific Station near Lenora; S. V. Zaporozhskaya lectured on spring water discharge and soil water infiltration; E. M. F. M. Dreyer and I. N. Stezhanskaya lectured on how to calculate the maximal spring water discharge in the Yenisey and Lena rivers according to the method of the G. P. Stribny; R. V. Nikolaeva lectured on sea levels of the Caspian sea during the 7-12 centuries and A. I. Martynova on the lake levels in the Turgay depression during 1899-1959; L. I. Luptina reported on the rivers and lakes of the Vityn plateau; E. V. Rykova discussed Pliocene forms of relief in the river valleys of the Kama basin; A. A. Felichko elucidated the features of the central area of the Russian plain; D. A. Kuznetsov reported on the recent glacial phenomena in Tachetina; and I. G. Yevseyev presented a classification of Tachetina in Central Caucasus; A. G. Chikina gave a geobotanic survey of the Central Urals; and I. I. Mityagin lectured on the division of the Trans-Ural wood-and-steppe area into single relief types;

Card 1/5

Card 2/5

on the Yenisey and Lena rivers according to the method of the G. P. Stribny; R. V. Nikolaeva lectured on sea levels of the Caspian sea during the 7-12 centuries and A. I. Martynova on the lake levels in the Turgay depression during 1899-1959; L. I. Luptina reported on the rivers and lakes of the Vityn plateau; E. V. Rykova discussed Pliocene forms of relief in the river valleys of the Kama basin; A. A. Felichko elucidated the features of the central area of the Russian plain; D. A. Kuznetsov reported on the recent glacial phenomena in Tachetina; and I. G. Yevseyev presented a classification of Tachetina in Central Caucasus; A. G. Chikina gave a geobotanic survey of the Central Urals; and I. I. Mityagin lectured on the division of the Trans-Ural wood-and-steppe area into single relief types;

Card 3/5





BASS, S.V.

Interzonal characteristics of the runoff of snow waters in the  
mixed forest zone. Izv. AN SSSR. Ser. geog. no.1:89-95 Ja-7 '61.  
(MIFA 14:2)

1. Institut geografii AN SSSR.  
(Runoff)

(Forest influences)

L'VOVICH, M.I.; BASS, S.V.; GRIN, A.M.; DREYER, N.N.; KUPRIYANOVA, Ye.I.

The water balance of the U.S.S.R. and prospects for its  
transformation. Izv. AN SSSR. Ser. geog. no.6:36-46 N-D '61.  
(MIRA 14:12)

1. Institut geografii AN SSSR.  
(Water resources development)

LVOVICI, M.I. [L'vovich, M.M.]; BASS, S.V.; GRIN, A.M.; DREIER, N.N.; [Dreier, N.N.]; KUPREANOVA, E.I. [Kupriyanova, Ye.I.]

Hydrologic balance of the U.S.S.R., and prospects of its transformation.  
Analele geol geogr 16 no.3:124-136 J1-Ag '62.

BASS, Sergey Varfolomeyevich; L'VOVICH, N.I., doktor geogr. nauk,  
otv. red.; GRISHINA, L.I., red, izd-va; NOVICHKOVA, N.D.,  
tekhn. red.; KASHINA, P.S., tekhn. red.

[Intrazonal characteristics of the spring surface runoff in  
the forest zone] Vnutrizonal'nye osobennosti vesennego po-  
verkhnostnogo stoka v lesnoi zone. Moskva, Izd-vo AN SSSR,  
1963. 105 p. (MIRA 16:12)

(Zagorsk District—Runoff)

BASS, S.V., kand. geograf.nauk; GRIN, A.M., kand. geograf. nauk; NAZAROV, G.V.,  
kand. geograf. nauk

Once more on the calculations of changes in streamflow under the influence of agriculture. Meteor. i gidrol. no.8:47-50 Ag '65.  
(MIRA 18:7)

1. Institut geografii AN SSSR i Laboratoriya ozerovedeniya Leningradskogo gosduarstvennogo universiteta.

BASS, S.V.

Past and present water balance of rivers of the Volga basin.

Izv. AN SSSR. Ser. geog. no. 1:27-33 Ja-F '66

(MIRA 19:2)

1. Laboratoriya ozerovedeniya AN SSSR.

BASS, TS.M., vrach; FLENOV, K.Ye., rentgenotekhnik

Attachment for easier pediatric roentgenology. Vest.rentg. 1 rad.  
33 no.1:78-79 Ja-F '58. (MIRA 11:4)

1. Iz rentgenovskogo otdeleniya (konsul'tant-prof. D.M. Abdurasulov)  
Detskoy bol'nitsy (nach. Ye.P. Skirdacheva) pri stantsii Tashkent.  
(X-RAYS--EQUIPMENT AND SUPPLIES)



BASS, T.M.

Resistance of staphylococci to erythromycin. Vrach.delo no.1:  
97-99 Ja '63. (MIRA 1642)

1. Otdel antibiotikov (zav. - doktor biologicheskikh nauk  
A.B. Chernomordik) Kiyevskogo instituta epidemiologii i  
mikrobiologii.

(STAPHYLOCOCCUS) (ERYTHROMYCIN)

BASS, T.M.

Sensitivity of staphylococci isolated in Kiev during the  
period 1961-1962 to some antimicrobial preparations. Anti-  
biotiki 8 no.5:472-477 My\*63 (MIRA 17:3)

1. Otdel antibiotikov Kiyevskogo instituta epidemiologii i  
mikrobiologii.

PADALKA, B.Ya.; KORMANOVA, Ye.Ye.; CHERNOMORDIK, A.B.; LUKACH, I.G.;  
BASS, T.M.

Materials on the etiology, clinical aspects and rational  
antibiotic therapy of chronic ulcerative colitis. Vrach. delo  
no.10:99-103 0 '63. (MIRA 17:2)

1. Kafedra infektsionnykh bolezney (zav. - prof. B.Ya.  
Padalka) Kiyevskogo meditsinskogo instituta i otdel anti-  
biotikov (zav. - doktor biologicheskikh nauk A.B. Chernomordik) Kiyevskogo instituta epidemiologii i mikrobiologii.

BASS, T.M.

Development of resistance and cross-resistance in staphylococci to  
oleandomycin and sekazin, Antibiotiki 8 no.12:1109-1112 D '63.

(MIRA 17:10)

1. Otdel antibiotikov Kiyevskogo instituta epidemiologii i mikro-  
biologii.

L 53884-65 EWT(1)/EWA(j)/EWA(b)-2 JK  
ACCESSION NR: AP5012903

UR/0297/65/010/005/0451/0455  
576.851.252.097.22:615.779.931+  
615.779.931-092.257:576.851.252.097.22

AUTHOR: Bass, T. M.

TITLE: Development of resistance and cross resistance in staphylococci to  
oleandomycin and sekazin

SOURCE: Antibiotiki, v. 10, no. 5, 1965, 451-455

TOPIC TAGS: antibiotic, resistance, staphylococcus, chemotherapy

ABSTRACT: Five staphylococcal strains isolated from patients with erythromycin-resistant bacteria (3 strains sensitive to oleandomycin, 2 strains resistant) were subjected to the action of oleandomycin and sekazin. After exposure to subbacteriostatic concentrations of erythromycin, staphylococci resistant to erythromycin but sensitive to other macrolide antibiotics became resistant to oleandomycin and sekazin. Resistance to erythromycin in pathogenic staphylococci is more stable than that to oleandomycin and sekazin. The loss of resistance to macrolide

Card 1/2

L 53884-55

ACCESSION NR: AP5012903

antibiotics and streptomycin by some staphylococcal strains seems to be due to the existence of individual sensitive cells in their populations. Orig. art. has: 3 tables.

ASSOCIATION: Otdel antibiotikov Kiyevskogo instituta epidemiologii i mikrobiologii (Department of Antibiotics, Kiev Institute of Epidemiology and Microbiology)

SUBMITTED: 19May64

ENCL: 00

SUB CODE: LS

NO REF SOV: 004

OTHER: 008

Card 2/2

BASS, T.M.

Effect of some antibiotics on the development of oleandomycin resistance in staphylococci. Antibiotiki 9 no.12:1081-1083 D '64. (MIRA 18:7)

1. Otdel antibiotikov (sav. - prof. A.V.Chernomordik) Kiyevskogo instituta epidemiologii i mikrobiologii.

BASS, T.M.

Resistance development and the cross-resistance of staphylococci  
to oleandomycin and sakazin. Antibiotiki 10 no.5:451-455 My '65.  
(MIRA 18:6)

1. Otdel antibiotikov (zav. - prof. A.B.Chernomordik) Kiyevskogo  
instituta epidemiologii mikrobiologii.



CHERNOMORDIK, A.B.; BASS, T.M.; BASS, M.A.; KOVALENKO, F.N.; ZAVADSKAYA, TS.Ye.

Neomycin-resistant forms of colienterites in children and their treatment. Antibiotiki 10 no.9:859-861 S '65.

(MIRA 18:9)

1. Otdel antibiotikov Kiyevskogo instituta epidemiologii i mikrobiologii.

L 62690-65

ACCESSION NR: AP5019082

UR/0286/65/000/012/0105/0105

AUTHORS: Bass, V. V.; Melamed, I. S.; Pogibko, M. G.

TITLE: Thermoanemometer. Class 42, No. 172141

SOURCE: Bulleten' izobreteniy i tovarnykh znakov, no. 12, 1965, 105

**ABSTRACT:** This Author Certificate presents a thermoanemometer containing a protective casing and a sensitive element in the form of a thermistor connected into the measuring bridge circuit. To make the thermoanemometer usable for taking long-time measurements in dust-bearing currents, the sensitive element is placed in a turbulent current produced by the protective casing made in a shape of, for instance, a glass mounted in the investigated current, with its open side parallel to the direction of this current.

ASSOCIATION: Donetskii filial gosudarstvennogo proyektivno-konstrukterskogo instituta "Giprogleavytomatizatsiya" (Donetsk branch of the State Design and Construction Institute "Giprogleavytomatizatsiya")

SYNOPSIS: OLIUNOL  
NO REF SOV: 00011111

ENCL: 00  
OTHER: 000

SUB CODE: ME, ES

Card 1/1

BASS, Ye-Z.

USSR/Engineering - Crankshafts

Card : 1/1

Authors : Bass, E. Z., Engineer

Title : Evaluation of the actual role of counterweights on the crankshaft of the ZIS-120 and ZIS-120 engines.

Periodical : Vest, Mash., 34, Ed. 6, 27 - 33, June 1954

Abstract : The article deals with the method of determining the load limits on a crankshaft and the solution of the problem of applying counterweights. Formulas are developed for computing the proper design of the counterweights. Engine road tests are described. Illustrations; graphs; tables.

Institution : ...

Submitted : ...

BASS, Yu. B.

"South Ukrainian Bauxites and Their Origin" p.351

Mineralogy and Origin of Bauxites, Moscow, Izd-vo AN SSSR (otd. geologo-geograf. nauk) 1958, 488pp.

This collection of articles by various authors on the mineralogy and geochemistry of bauxites appeared as a result of 1955 conf. on the origin of bauxite (Chairman, Acad. N. M. Stakhov)